



# UNITED STATES PATENT AND TRADEMARK OFFICE

W'D  
UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO.                           | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/797,867                                | 03/10/2004  | Po-Cheng Chen        | 250122-1350         | 2229             |
| 24504                                     | 7590        | 08/01/2007           | EXAMINER            |                  |
| THOMAS, KAYDEN, HORSTEMEYER & RISLEY, LLP |             |                      | LEWIS, MONICA       |                  |
| 100 GALLERIA PARKWAY, NW                  |             |                      |                     |                  |
| STE 1750                                  |             |                      | ART UNIT            | PAPER NUMBER     |
| ATLANTA, GA 30339-5948                    |             |                      | 2822                |                  |
|   |             |                      | MAIL DATE           | DELIVERY MODE    |
|   |             |                      | 08/01/2007          | PAPER            |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

|                              |                        |                     |
|------------------------------|------------------------|---------------------|
| <b>Office Action Summary</b> | <b>Application No.</b> | <b>Applicant(s)</b> |
|                              | 10/797,867             | CHEN ET AL.         |
|                              | <b>Examiner</b>        | <b>Art Unit</b>     |
|                              | Monica Lewis           | 2822                |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### **Status**

- 1) Responsive to communication(s) filed on 10 May 2007.
- 2a) This action is **FINAL**.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### **Disposition of Claims**

- 4) Claim(s) 12-22 is/are pending in the application.
- 4a) Of the above claim(s) 14-21 is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 12, 13 and 22 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### **Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 10 March 2004 is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### **Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### **Attachment(s)**

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_.
- 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) Notice of Informal Patent Application
- 6) Other: \_\_\_\_\_.

## **DETAILED ACTION**

1. This office action is in response to the request for continued examination filed May 10, 2007.

### ***Continued Examination Under 37 CFR 1.114***

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/10/07 has been entered.

### ***Response to Arguments***

3. Applicant's arguments with respect to claims 12, 13 and 22 have been considered but are moot in view of the new ground(s) of rejection.

### ***Drawings***

4. The drawings are objected to because of the following: a) the way figure 1 is drawn it is not clear what is on the rear and front substrate. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets

may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claim 22 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains the following subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention: a) the bus electrode comprises non-transparent bus electrode material or black matrix material. The specification discloses that the bus electrode may comprise metal or conductive materials (For Example: See page 5 line 29 and page 6 lines 1 and 2).

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoon et al. (U.S. Patent No. 7,098,594) in view of Choi (U.S. Patent No. 6,806,645).

In regards to claim 12, Yoon et al. ("Yoon") discloses the following:

- a) a front substrate (22) (For Example: See Figure 1); and
- b) a rear substrate (20) having a second pattern comprising at least one hexagonal honeycomb pattern formed with rib barriers installed on the predetermined assembling position thereof, wherein the projection of the line segment is substantially parallel to at least one side of the hexagonal honeycomb pattern with a predetermined distance therebetween (For Example: See Figure 1).

In regards to claim 12, Yoon fails to disclose the following:

- a) a first pattern comprising at least one line segment isolated from the bus electrode, the at least one line segment installed on the predetermined assembling position.

However, Choi discloses a semiconductor device that has a first pattern comprising at least one line segment (42c) isolated from the bus electrode (42a), the at least one line segment installed on the predetermined assembling position (For Example: See Figure 6). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the semiconductor of Yoon to include a first pattern comprising at least one line segment isolated from the bus electrode, the at least one line segment installed on the

predetermined assembling position as disclosed in Choi because it aids in improving discharge efficiency (For Example: See Abstract).

Additionally, since Yoon and Choi are both from the same field of endeavor, the purpose disclosed by Choi would have been recognized in the pertinent art of Yoon.

In regards to claim 13, Yoon discloses the following:

- a) the first pattern comprises a plurality of parallel line segments.

However, Choi discloses a semiconductor device that has a first pattern comprises a plurality of parallel line segments (For Example: See Figure 6). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the semiconductor of Yoon to include a first pattern comprises a plurality of parallel line segments as disclosed in Choi because it aids in improving discharge efficiency (For Example: See Abstract).

Additionally, since Yoon and Choi are both from the same field of endeavor, the purpose disclosed by Choi would have been recognized in the pertinent art of Yoon.

9. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoon et al. (U.S. Patent No. 7,098,594) in view of Choi (U.S. Patent No. 6,806,645) and Boo et al. (Korean Publication No. 2002019353).

In regards to claim 22, Yoon fails to disclose the following:

- a) the bus electrode comprises non-transparent bus electrode material or black matrix material.

However, Boo et al. (“Boo”) discloses a semiconductor device that has non-transparent bus electrode material (13) or black matrix material (For Example: See Abstract). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify

Art Unit: 2822

the semiconductor of Yoon to include a first pattern installed on the front substrate that comprises a non-transparent bus electrode material or black matrix material as disclosed in Boo because it aids in providing a discharge sustain function (For Example: See Abstract).

Additionally, since Yoon and Boo are both from the same field of endeavor, the purpose disclosed by Boo would have been recognized in the pertinent art of Yoon.

*Conclusion*

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monica Lewis whose telephone number is 571-272-1838. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zandra Smith can be reached on 571-272-2429. The fax phone number for the organization where this application or proceeding is assigned is 571-272-8300 for regular and after final communications.

ML  
July 18, 2007



MONICA LEWIS  
PRIMARY PATENT EXAMINER